

ABSTRACT

5 In a method of producing a micro-electromechanical element a
first intermediate layer, which is applied to a first main
surface of a first semiconductor wafer, is structured in a
first step so as to produce a recess. The first semiconductor
wafer is connected via the first intermediate layer to a sec-
10 ond semiconductor wafer in such a way that a hermetically
sealed cavity is defined by the recess. When one of the wa-
fers has been thinned from a surface facing away from said
first intermediate layer so as to produce a diaphragm-like
structure on top of the cavity, electronic components are
15 produced in said thinned semiconductor wafer making use of
standard semiconductor processes. At least one further inter-
mediate layer between the two semiconductor wafers is pro-
vided, which, prior to the connection of the two semiconduc-
tor wafers, is structured in such a way that the structure
20 formed in said at least one further intermediate layer and
the recess in said first intermediate layer define the cav-
ity. Finally at least one defined opening is produced so as
to provide access to the hermetically sealed cavity.